

37. Docket 33895, application of Fast Air Carrier Ltda. for exemption to perform 16 nonscheduled cargo flights between Chile and Miami pending final action on its 402 permit application (BIA).

38. Dockets 32333 and 33100, application of American Airlines, Inc., to amend its certificate for Route 134 to add Manzanillo and Zihuatanejo, Mexico, and to amend condition (5) to reflect the added routes; application of American Airlines, Inc., to amend its certificate for Route 134 only to amend Condition 5 of that route (memo 8381, BIA, OGC).

STATUS: Open.

PERSON TO CONTACT: Phyllis T. Kaylor, the Secretary, 202-673-5068.

[S-1-79 Filed 1-2-79; 11:19 am]

[6770-01-M]

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[F.C.S.C. Meeting Notice No. 28-77]

FOREIGN CLAIMS SETTLEMENT COMMISSION.

ANNOUNCEMENT IN REGARD TO COMMISSION MEETINGS AND HEARINGS

The Foreign Claims Settlement Commission, pursuant to its regulations (45 CFR Part 504), and the Government in the Sunshine Act (5 U.S.C. 552b), hereby gives notice in regard to the scheduling of open meetings for the transaction of Commission business and other matters specified, as follows:

Date, time, and subject matter

- Wednesday, January 3, 1979, at 10:30 a.m.—Consideration of decisions involving claims of American Citizens against the German Democratic Republic.
- Wednesday, January 10, 1979, at 10:30 a.m.—Consideration of decisions involving claims of American Citizens against the German Democratic Republic.
- Wednesday, January 17, 1979, at 10:30 a.m.—Consideration of decisions involving claims of American Citizens against the German Democratic Republic.
- Wednesday, January 24, 1979, at 10:30 a.m.—Consideration of decisions involving claims of American Citizens against the German Democratic Republic.
- Wednesday, January 31, 1979, at 10:30 a.m.—Consideration of decisions involving claims of American Citizens against the German Democratic Republic.

Subject matter listed above, not disposed of at the scheduled meeting, may be carried over to the agenda of the following meeting.

All meetings are held at the Foreign Claims Settlement Commission, 1111 20th Street NW., Washington, D.C. Requests for information, or advance notices of intention to observe a meeting, may be directed to: Executive Director, Foreign Claims Settlement Commission, 1111 20th Street NW., Washington, D.C. 20579. Telephone: 202-653-6156.

Dated at Washington, D.C., on December 19, 1978.

FRANCIS T. MASTERSON,
Executive Director.

[S-4-79 Filed 1-2-79; 3:40 pm]

[7035-01-M]

3

INTERSTATE COMMERCE COMMISSION.

TIME AND DATE: 9:30 a.m., Tuesday, January 9, 1979.

PLACE: Hearing Room C, Interstate Commerce Commission Building, 12th and Constitution Avenue NW., Washington, D.C. 20423.

STATUS: Open special conference.

MATTER TO BE CONSIDERED: Amtrak—Adequacy Regulations and Other Policy Considerations.

CONTACT PERSON FOR MORE INFORMATION:

Douglas Baldwin, Director, Office of Communications, telephone: 202-275-7252.

The Commission's professional staff will be available to brief news media representatives on conference issues at the conclusion of the meeting.

JANUARY 2, 1979.

[S-5-79 Filed 1-2-79; 3:48 pm]

[4910-58-M]

4

NATIONAL TRANSPORTATION SAFETY BOARD.

TIME AND DATE: 9 a.m., Thursday, January 11, 1979 [NM-79-11].

PLACE: NTSB Board Room, National Transportation Safety Board, 800 Independence Avenue SW., Washington, D.C. 20594.

STATUS: Open.

MATTERS TO BE CONSIDERED:

1. *Aircraft Incident Report*—E.S.M. Group, Inc., Cessna Citation, N51MW, North Central Airlines, Inc., DC-9-30, N957N, LaGuardia Airport, Flushing, N.Y., June 21, 1978.

2. *Marine Accident Report*—USS L. Y. Spear collision with Liberian Motor Tankship *Zephyros*, Lower Mississippi River, February 22, 1978.

3. *Letter to Federal Aviation Administration* re recommendation A-75-28, overboard leakage of fluids subject to freezing.

CONTACT PERSON FOR MORE INFORMATION:

Sharon Flemming, 202-472-6022.

[S-3-79 Filed 1-2-79; 2:49 pm]

[7090-01-M]

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NUCLEAR REGULATORY COMMISSION.

TIME AND DATE: January 3, 1979.

PLACE: Chairman's Conference Room, 1717 H Street NW., Washington, D.C.

STATUS: Open and closed.

MATTERS TO BE CONSIDERED: Wednesday, January 3, 9:30 a.m.

1. Discussion of personnel matter (approximately 1½ hours, closed—exemption 6).

2. Briefing on fiscal year 1979 operating plans—Decision Unit Tracking (continued from Dec. 14, 1978, approximately 1 hour), (public meeting).

CONTACT PERSON FOR MORE INFORMATION:

Walter Magee, 202-634-1410.

WALTER MAGEE,
Office of the Secretary.

DECEMBER 29, 1978.

[S-2-79 Filed 1-2-79; 2:38 pm]

Registered for Federal Use

**THURSDAY, JANUARY 4, 1979
PART II**



**DEPARTMENT OF
TRANSPORTATION**

**Federal Aviation
Administration**



**PROPOSED
"CONTROLLED VISUAL
AND FLIGHT" RULES**

[4910-13-M]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

[14 CFR Parts 1, 71, 91, 105]

[Docket No. 18605; Notice No. 78-19]

"CONTROLLED VISUAL FLIGHT" RULES**Proposed Rulemaking**

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rule making.

SUMMARY: The FAA announces an extensive program designed to provide increased air traffic control (ATC) separation protection for air carrier, commuter airlines, and general aviation passengers. This program would include lowering the "floor" of the continental positive control area (PCA) from 18,000 feet to 10,000 feet east of the Mississippi River and over a portion of the State of California, and 12,500 feet west of the Mississippi River and over the remaining portion of California. This would require VFR pilots operating between this lowered "floor" and 18,000 feet to file flight plans, comply with ATC instructions, and have the equipment now required for operation in a Group I TCA, including transponder. When fully implemented, the controlled visual flight program would make ATC separation protection available to approximately 97% of scheduled air carrier passengers, and over 62% of commuter airline passenger enplanements in the terminal airspace environment. The same protection would also benefit general aviation passengers in this environment. Later actions will include proposals to raise the "ceilings" of 21 existing TCAs to the lowered PCA "floor" and establish 44 new Group II TCAs. The current Group III TCA concept would be deleted as unnecessary. Nonregulatory terminal radar service areas (TRSAs) would also be established, on a high priority basis, at 80 additional airports. Parachuting in the lowered PCA, and in the underlying terminal control areas (TCAs) would require ATC authorization. The present exclusion for gliders would be continued but notification of ATC would be required. The goal is the greatest possible increase in safety at the lowest achievable cost to all airspace users and, particularly, the highest feasible level of safety for passengers in public air transportation.

DATES: Comments must be received on or before: March 5, 1979.

ADDRESSES: Send comments on the proposal in duplicate to: Federal Aviation Administration, Office of the Chief Counsel, Attn: Rules Docket

(AGC-24), Docket No. 18605, 800 Independence Avenue, SW., Washington, D.C. 20591.

FOR FURTHER INFORMATION CONTACT:

William E. Broadwater, Airspace and Air Traffic Rules Division (AAT-200), Air Traffic Service, Federal Aviation Administration, 800 Independence Avenue, SW., Washington, D.C. 20591; telephone (202) 426-3731.

SUPPLEMENTARY INFORMATION: Interested persons are invited to participate in the making of the proposed rule by submitting such written data, views, or arguments as they may desire. Communications should identify the regulatory docket or notice number, and be submitted in duplicate to the Federal Aviation Administration, Office of the Chief Counsel, Attention: Rules Docket AGC-24, 800 Independence Avenue, SW., Washington, D.C. 20591. Communications should be received on or before March 5, 1979 to assure proper consideration. All comments submitted will be available in the Rules Docket, both before and after the closing date for comment, for examination by interested persons. A report summarizing each substantive public contact with FAA personnel concerned with this rule making will be filed in the docket.

AVAILABILITY OF NPRMS

Any person may obtain a copy of this notice of proposed rule making (NPRM) by submitting a request to the Federal Aviation Administration, Office of Public Affairs, Attention: Public Information Center, APA-430, 800 Independence Avenue, SW., Washington, D.C. 20591, or by calling (202) 426-8058. Communications must identify the notice number of this NPRM. Persons interested in being placed on a mailing list for future NPRMs should also request a copy of Advisory Circular No. 11-2 which describes the application procedure.

THE "HIGHEST DEGREE" OF AIR TRANSPORTATION SAFETY

The Air Traffic Control (ATC) system, through the evolution of equipment and the high levels of skill of pilots, controllers, and others, has evolved into a system in which the probability of a collision is extremely remote. For example, in 1978 there were approximately 95 million operations recorded by FAA facilities in the continental United States, including approximately 70 million terminal operations and 25 million enroute operations. Approximately 2 near midair collisions (NMACs) were reported per million operations in TCAs, 4 NMACs were reported per million operations in TRSAs, and less than 1 NMAC was

reported for each million operations reported in enroute airspace. The present high level of public confidence in this system is well justified. It is a system that can properly be taken for granted by the travelling public. However, while the likelihood of a collision is diminishing, the importance of continued examination of the ATC system remains, for these statistics can not measure the social costs of an accident. With this in mind, the FAA is embarked upon a major new initiative to improve still further the collision avoidance protection of the existing ATC system while developing new system capabilities through extensive research and development involving ground based and airborne equipment. Like other systems, the ATC system can be improved. This requires the constant support of all users of the system to assure an accurate assessment of the critical elements essential to the safe and efficient flow of air traffic. This is particularly true where the safety of passengers carried by air carriers is concerned.

The congressional mandate is clear with respect to the high levels of safety intended for passengers in air transportation. Section 601 of the Federal Aviation Act of 1958 requires that the FAA give full consideration to the duty resting on air carriers to perform their services with the "highest possible degree of safety in the public interest * * *". This Congressional concern for air transportation, as a distinct class to be protected, was most recently restated in the Airline Deregulation Act of 1978 (Pub. L. 95-504, October 24, 1978) which amended section 102 of the Federal Aviation Act of 1958 to emphasize the "dedication of the Congress to the furtherance of the highest degree of safety in air transportation and air commerce, and the maintenance of the safety vigilance that has evolved within air transportation and air commerce and has come to be expected by the traveling and shipping public" (49 U.S.C. 1302(a)). The Airline Deregulation Act of 1978 also directs the Secretary of Transportation ("Secretary"), by July 1, 1979, to complete a thorough review of the safety regulations applicable to air carriers in order to ensure that "all classes of air carriers are providing the highest possible level of safe, reliable air transportation to all the communities served by those air carriers." The Administrator is directed to respond to the Secretary's review by promulgating regulations that may be needed to "maintain the highest standard of safe, reliable air transportation in the United States." The "high standard of safety in air transportation" is also stressed in relation to annual reports to be submitted to the Congress by the Secretary beginning not later than January

31, 1980 (New section 107 of the Federal Aviation Act of 1958, as amended by the Airline Deregulation Act of 1978). The orderly and extensive expansion of positive controlled airspace, beginning with the proposals in this notice, would assure that the system-wide capability of the FAA to assure separation protection for air carrier passengers remains consistent with the encouragement and growth of a vigorous, safe and efficient air transportation system, as contemplated by the new Act.

The support of all airspace users is critical to the success of the controlled visual flight program. In view of the widespread use of ATC services by pilots even when not required (see analysis of pilot participation in TRSAs, below), the FAA believes that the CVF concept can be highly effective.

BACKGROUND: ENROUTE AIRSPACE

While the existing ATC system has been extraordinarily successful in moving large volumes of aircraft safely a small risk of collision remains. For enroute operations, this risk has been identified in the airspace between 10,000 and 18,000 feet where uncontrolled VFR aircraft "mix" with air carriers and other ATC controlled aircraft. For altitudes above 18,000 feet, where positive controlled airspace has already been implemented, the incidence of NMACs has all but disappeared, with approximately 10 per year being reported throughout the entire upper airspace structure.

ALTITUDES BELOW 18,000 FEET

Between January, 1976, and September, 1978, for operations below 18,000 feet within the 48 contiguous States, 1,006 near midair collisions (NMACs) were reported to FAA. (Unless otherwise stated, all references to altitudes in this Notice are to Mean Sea Level (MSL)). Of these reports, 95% (948) involved an aircraft operating under visual flight rules, and 26% (257) involved an air carrier aircraft. Eighty-three percent of the incidents (212) involving an air carrier aircraft also involved a VFR aircraft. Between the altitudes of 17,900 and 13,000 feet, 35 NMACs were reported, of which 91% (32) involved VFR aircraft and 46% (16) involved air carrier flights. Ninety-three percent (15) of the incidents involving air carriers involved a VFR aircraft.

12,900 TO 10,000 FEET

For altitudes between 12,900 feet and 10,000 feet, 79 NMACs were reported, of which 91% (72) involved VFR aircraft and 57% (45) involved air carrier flights. Of the incidents involving air carriers, 87% (39) involved VFR aircraft.

With respect to the NMACs in which an air carrier aircraft encountered a VFR aircraft, 62% (24) occurred in enroute airspace, while 38% (15) occurred within a 30-mile radius of an airport at which at least one of the two aircraft involved had departed or was arriving prior to landing.

BELOW 10,000 FEET

For altitudes at and below 9,900 feet, 892 NMACs were reported, of which 94% (844) involved VFR aircraft, while 22% (196) involved air carrier aircraft. Of the incidents involving air carrier aircraft, 86% (168) involved VFR aircraft. Thirty-nine of the incidents (23%) involving an air carrier aircraft and a VFR aircraft occurred in the enroute environment, while 129 (77%) occurred within 30 miles of an airport at which at least one of the aircraft was either departing or arriving for the purpose of landing.

Near midair collision data has also been recorded in the airspace for which the FAA is proposing to establish either a terminal control area (TCA) or terminal radar service area (TRSA). In this airspace, 327 NMACs were reported between January 1, 1976 and September, 1978. Of these incidents, 94% (306) involved a VFR aircraft and 32% (106) involved an air carrier aircraft. Of these air carrier incidents, 87% (92) involved an encounter with a VFR aircraft.

REGULATORY CONCLUSION

The FAA views this kind of information not as an absolute indicator of numbers of incidents, but rather, as a means of understanding the potential for a catastrophic event and the factors that may be controllable in reducing that potential. In this context, the above near midair collision data point to two conclusions: (1) A small but clear potential for midair collision exists, for certain enroute and terminal airspace; and (2) a recurring factor in this potential is the presence, in that airspace, of VFR aircraft that are not under full ATC control. This factor can be almost completely eliminated, within that airspace, by regulation.

FAA believes that this near midair collision data supports the extension of positive controlled airspace into the region between the current ceilings of the TCAs (prescribed at various altitudes between 7,000 feet and 12,500 feet) and the floor of the continental positive control area (generally at 18,000 feet). The absence of positive control in this layer of airspace deprives arriving and departing IFR aircraft in this airspace of the full benefits of air traffic control while they are transitioning between terminal and enroute operations. This means that during descent or climb-out, IFR

aircraft in some cases pass through a band of airspace in which VFR aircraft are not separated from IFR aircraft by ATC, even though that service is provided before entering that airspace and immediately upon leaving it. Implementation of CVF appears to offer one possible solution which would eliminate the "mix" of uncontrolled VFR aircraft and controlled IFR aircraft, while avoiding the more restrictive approach of requiring all aircraft to be under IFR, as is now the case for operations in the positive control area above 18,000 feet.

This notice initiates the CVF program by concentrating on the enroute environment. Since the concepts in this notice have matured to the point that detailed regulatory language can be offered for public comment, this document is issued as a notice of proposed rule making, rather than as an Advance Notice of Proposed Rule Making (ANPRM) as has been previously discussed with the public. This procedure will accelerate the development of necessary rules in the high speed, enroute environment.

The near midair collision data described above, for the enroute environment, indicates that the FAA should act as soon as possible to assure full separation to aircraft at and above 12,500 feet, and, in the two heaviest air traffic areas, at and above 10,000 feet.

As part of this process, the FAA has identified two areas in which the full protection of air carrier passengers and other airspace users requires ATC separation of all aircraft at and above 10,000 feet (rather than at and above 12,500 feet only) because of the sustained heavy traffic in these two areas.

THE "WESTERN STEP"

One of these areas, referred to as the "Western Step," encompasses approximately one-third of the State of California. It takes in airspace from approximately 80 miles north of San Francisco to the Mexican border, and extends from the coast eastward to the west slope of the Sierras, where the terrain rises sharply. It constitutes a topographically well defined corridor encompassing all the major city-pairs in California. The airspace in the Western Step generates one of the highest NMAC counts in the United States.

THE "EASTERN STEP"

The other area for which a 10,000-foot PCA floor is proposed encompasses all of the airspace east of the Mississippi River. State-by-State analysis of NMAC data for the 10,000-12,500-foot strata indicates that NMACs are considerably more likely in this airspace than in the airspace west of the Mississippi River. From

PROPOSED RULES

the Florida panhandle to slightly west of Chicago, the implementation of the CVF concept could have a significant beneficial effect. The Mississippi River itself is a clearly discernible landmark for VFR pilots.

PUBLIC COMMENT INVITED

In discussion below concerning the impact of the 10,000-foot PCA floor on VFR operations, public comment is requested concerning the precise effects of the Eastern and Western Steps on aircraft usage. If analysis of these comments indicates that the desired improvement of the ATC system can be accomplished with less airspace in the 10,000-foot areas, the Eastern Step or Western Step may be adopted in smaller form. However, if adopted as proposed, the lowered floor of the continental positive control area would be structured as shown in Figure 1 (the precise description of the proposed boundaries of this airspace is furnished in the amendatory language below).

[4910-13-C]

Proposed Continental Positive Control Area

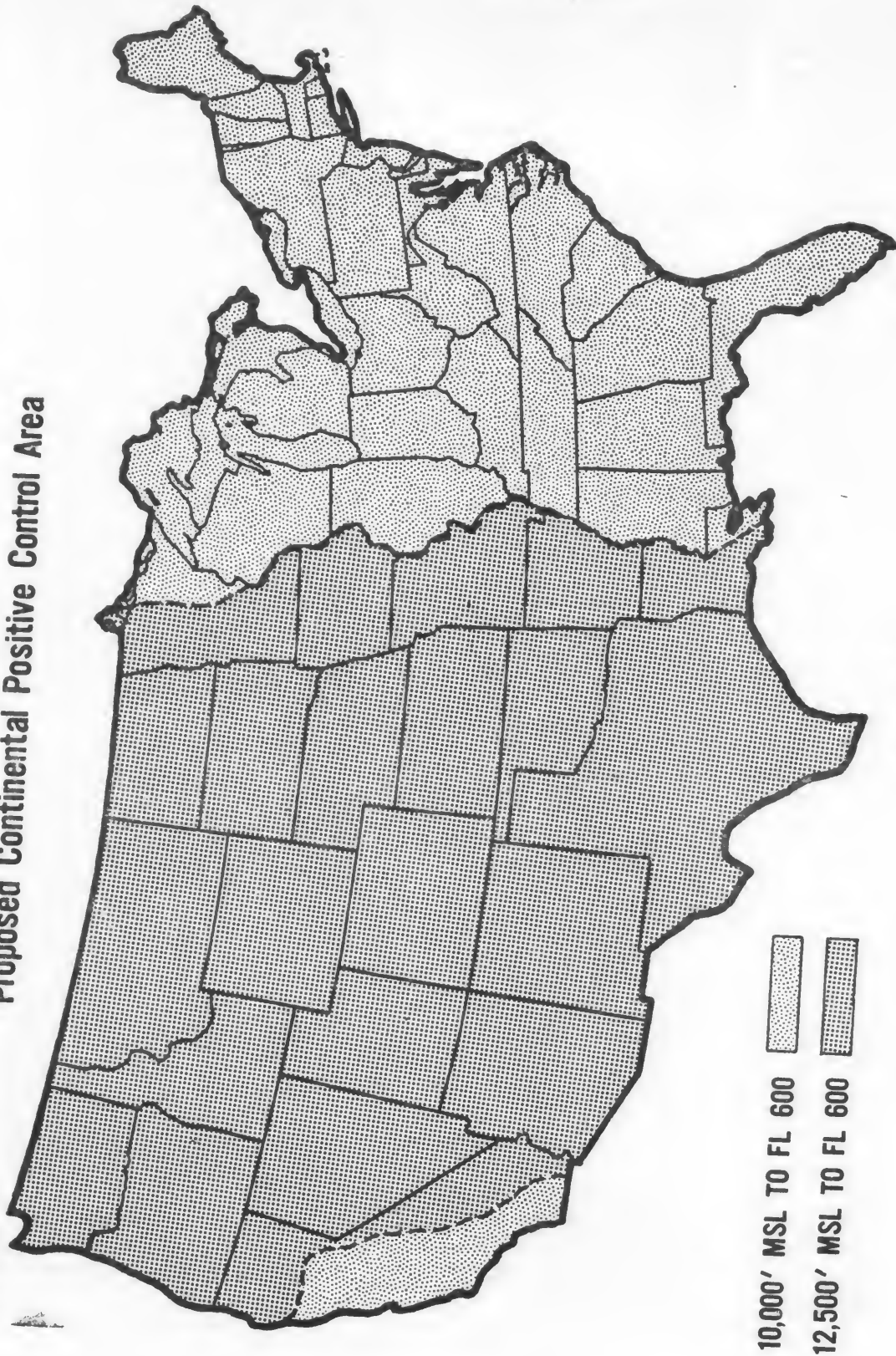


FIGURE 1

PROPOSED RULES

TERMINAL AIRSPACE

Concurrent with the issuance of this notice concerning enroute airspace, the FAA is developing additional proposals to reduce the probability of hazardous traffic conflicts involving the mix of controlled and uncontrolled aircraft in the terminal environment. These supplementary proposals will build on the controlled visual flight concepts proposed herein, and would raise the ceilings of the existing terminal control areas to 12,500 feet (and, in the two heavy air traffic areas mentioned above, 10,000 feet).

This would be a logical extension of many years of pilot participation in terminal radar separation programs. In 1962, such a program was initiated at Atlanta to solve communications workload problems and assist in aircraft sequencing. This was followed by a similar program at Merced Air Force Base, California, in 1965. This service was gradually extended until 1970, when the National Terminal Radar Program initiated a major expansion of ATC separation service following the 1968 Near Midair Collision Report (discussed below). Beginning with the TRSA at Nashville, a total of 86 TRSAs covering 105 airports were established under that program, the last being the Peoria TRSA in 1978. The 1970 National Radar Program also initiated the TCA concept involving mandatory ATC control of VFR (and IFR) aircraft. Beginning with the Atlanta TCA in 1970 and ending with the Kansas City TCA in 1975, 21 TCAs covering 23 airports have been implemented by regulation. In addition, the ceiling of the Atlanta TCA was raised to 12,500 feet in 1975 to provide additional protection for arriving and departing aircraft.

The controlled visual flight program carries this history forward by expanding the terminal airspace protected by ATC separation. New Group II Terminal Control Area proposals are being developed for the following 44 airports:

Albany, N.Y.	Dayton
Albuquerque	Des Moines
Anchorage	Dulles
Baltimore	El Paso
Birmingham	Fort Lauderdale
Buffalo	Hartford-Windsor
Charlotte	Locks
Cincinnati	Honolulu
Columbus, Ohio	Indianapolis

Jacksonville
Kahului
Lihue
Louisville
Memphis
Milwaukee
Nashville
Norfolk
Oklahoma City
Omaha
Orlando
Phoenix
Portland, Oregon
Raleigh-Durham

Reno
Rochester, N.Y.
Sacramento
Salt Lake City
San Antonio
San Diego
San Juan
Spokane
Syracuse
Tampa
Tucson
Tulsa
West Palm Beach

GROUP III TCAs NOT NEEDED

Because of the expanded use of Group II TCAs and TRSAs, it is believed that the Group III TCAs as a class would not be needed. While there are no Group III TCAs in existence, the current rules provide for their issuance if they are needed. A proposal to delete all references to Group III TCAs was circulated in 1976 (see Notice 76-20, 41 FR 46875, October 26, 1976). However, to obtain a more current and detailed public response on this question as a part of the extensive increase in the number of Group II Terminal Control Areas, the matter of deleting all references to "Group III" TCAs is proposed again in this notice. The reason for the proposed elimination of the Group III TCA concept is that, as originally issued in 1970, the Group III TCA rules permit aircraft to either be in two-way radio communication with ATC or be equipped with a transponder and altitude encoder. This would authorize properly equipped aircraft to transit the TCA without communication with ATC. In view of the increase in aircraft operations to date in terminal airspace, and those expected in the future, the FAA believes that adequate ATC control of the "mix" of controlled and uncontrolled aircraft requires, as a minimum, that each aircraft in the TCA receive and comply with ATC instructions. This capability would be assured in the 44 new Group II TCAs that are proposed. If those new TCAs are established, it appears that additional TCAs in which a pilot may elect not to communicate, if altitude reporting equipment is used, (e.g. the Group III concept), would serve no useful purpose.

THE TERMINAL AIRSPACE COLLISION POTENTIAL

In addition to the experience in enroute airspace, the FAA experience since the establishment of mandatory TCAs and voluntary Terminal Radar Service Areas (TRSAs) indicates that, in terminal airspace as well, the ab-

sence of ATC control of VFR aircraft interferes with the ability of the ATC system to assure separation for all airspace users. A comparison of periods before and after the establishment of terminal control areas and terminal radar service areas is instructive. In 1968, the FAA conducted an extensive study of the near midair collision hazard in U.S. airspace. The results of this study were published in the "Near Midair Collision Report of 1968," July, 1968. A major portion of the report was devoted to the collision potential in terminal airspace. For the year 1968 (which preceded the establishment of terminal control areas), the report concluded that, for the airports now served by terminal control areas, there were 271 incidents reported as "hazardous" to flight. In response to that study, since 1970, 21 terminal control areas were established. For the fiscal years 1975, 1976, and 1977, there were a total of 64 reported near midair collisions in these terminal control areas. For comparison purposes, this translates into an average of approximately 20 reported incidents per year, under the TCA requirements, in contrast with 271 incidents for the year 1968. Here again, it should be noted that these figures are not conclusive indicators of the absolute numbers of incidents, but are viewed as pointing toward the critical relationship between the absence of positive control of all aircraft and the likelihood of hazardous traffic conflicts in terminal airspace.

REGULATORY CONCLUSION

Where the mass transport of passengers by air carriers is involved, and considered in relation to the "highest possible" safety level intended for air carriers, the FAA believes that the presence of controlled and uncontrolled aircraft, in the same airspace, must be limited by regulation at the 44 additional airport locations referred to above, and in the airspace between the ceilings of existing TCAs and the lowered floor of the continental positive control area. The detailed, localized impacts and scope of each new TCA, and of the raising of the current TCA ceilings, will be addressed in later rule-making actions involving each location. However, based on the experience concerning the existing TCAs, the FAA concludes that extension of positive control to the additional locations would provide an effective means of further reducing the risk of midair collision.

SUMMARY OF SAFETY BENEFITS

For several years the FAA has been considering means of extending ATC

services to VFR pilots without unduly limiting VFR operation. During this period, the factors involved in near midair collisions have received intensive review. The conclusions of this review all point in one direction: an orderly, equitable, and extensive expansion of positive controlled airspace is necessary to achieve a significant reduction of the midair collision potential in the enroute and terminal environments and to assure that ATC services grow with the projected growth of air commerce. Implementation of CVF as proposed in this notice would significantly expand the benefits of the collision avoidance capability that already exists in ground based and airborne equipment, and would provide a much broader basis for incorporating improved collision avoidance equipment at a later date.

AIR CARRIER PASSENGER BENEFITS

Scheduled air carrier passenger enplanements reached the 280 million mark in 1978. The establishment of Terminal Control Areas at the 44 additional airports listed above would raise, to 87%, the percentage of all enplaned scheduled air carrier passengers, in the United States, that receive the full benefits of mandatory positive control in terminal airspace. This is in contrast with the current figure, for the 21 existing TCAs, which is 62%. The FAA also plans to supplement this action with the establishment of 80 new terminal radar service areas (TRSAs). A TRSA is a designated area, around an airport, in which participating VFR aircraft are, if they request, provided separation from IFR aircraft and other participating VFR aircraft. Some of the existing TRSAs would be converted to TCAs. At the conclusion of this expansion of TCA and TRSA airspace, the total percentage of enplaned air carrier passengers receiving either mandatory (TCA) or voluntary (TRSA) separation protection will be approximately 97% as compared with 98% (which includes 62% in TCAs and 27% in TRSAs) in the current ATC system.

These figures mark a major shift in emphasis toward TCAs (up from 62% to 87% of enplaned scheduled air carrier passengers) and away from TRSAs (down from 27% to 10% of enplaned passengers). This should further increase the overall safety furnished by the CVF program. Considering the statutory mandate to seek the "highest degree of safety" for passengers in public air transportation, this expansion of terminal and enroute airspace would be an important factor in assuring that the ATC system continues to keep pace with the projected growth in air carrier passenger enplanements. For the years 1977-1989, these enplanements are forecast to increase

by 80% (from 232.1 to 418.4 million) (The source of the forecasts in this notice is a study entitled *FAA Aviation Forecasts: Fiscal Years 1978-1989*, September, 1977. This study is in the rules docket).

COMMUTER AIRLINE PASSENGER BENEFITS

In addition to the substantial increase in terminal airspace protection for air carrier passengers that would be afforded by the planned TCAs and TRSAs, major safety benefits would also result for commuter airline passengers. Using 1977 figures (which is the last set of complete commuter traffic data), the addition of the 44 new TCAs and 80 new TRSAs (and the conversion of some of the existing TRSAs to TCAs) would raise the number of enplaned commuter passengers protected by ATC separation capability from 3,619,550 (in the existing TCAs and TRSAs) to 4,332,637 (after the proposed TCAs and TRSAs come into effect). Within this total increase of 19.7%, the number of enplaned commuter airline passengers protected by the mandatory TCA requirements would be increased from 2,667,992 to 3,446,147. This means that, based only on 1977 commuter data, the planned TCA actions would result in a 29.2% increase in the number of enplaned commuter airline passengers protected by TCA separation procedures. In relation to the total number of enplaned commuter airline passengers in the contiguous 48 States (6,937,649), this achieves an increase, in protected passengers, from 38.5% to 49.7%. When combined with the new TRSA actions, this figure rises to 62.5% of all commuter enplanements. It should be noted that these figures appear to be quite conservative for two reasons. First, they are based on 1977 data, whereas the projected growth of commuter airline operation is expected to place many more passengers in the protected airspace. (The September, 1977, FAA Forecast, discussed above, indicates that, between 1970 and 1977, commuter passenger enplanements increased from 4 million to 7 million, which is an average of more than 8% each year. Commuter enplanements are expected to reach 14.5 million by 1989, which is an increase of 123% from 1977.) In addition, the cited figures are generally for the primary airports only, and do not show enplanements at certain airports, included in TCAs and TRSAs, that are not the primary airport around which the TCA or TRSA is designed. The proposals in this notice could, in summary, be instrumental in increasing the volume of commuter airline passengers that receive the full benefits of the ATC system in terminal airspace.

GENERAL AVIATION BENEFITS

The proposed terminal and enroute proposals in this notice would benefit the general aviation passenger in a manner closely paralleling the benefits accruing to air carrier and commuter passengers. It is impossible to precisely predict the airport use pattern of business, private, and sport aircraft because they are not tied to any schedule and have as a primary value great flexibility of operation. However, many general aviation aircraft use the airports that are used by air carriers and commuters. These aircraft often serve as an important link between the airlines and their ultimate market. The FAA supports this "bridge" function of general aviation within the total public air transportation system and has also considered, in these proposals, the large and vital role of general aviation outside of public air transportation.

General aviation aircraft comprise 98.7% of the total number of aircraft in the U.S. civil aircraft fleet. During 1977, approximately 185,000 active aircraft (out of a total general aviation fleet of 212,735 aircraft) operated approximately 35.8 million hours of flight time. This constituted a 5.6% increase over the total flight hours for 1976 (33.9 million). The 1977 FAA Forecast indicates a growth rate of 5.6% per year through 1982, with a slower growth maintained through 1989. This is expected to result in a 63% increase in numbers of general aviation aircraft from 1977 to 1989 (up to 294,000 aircraft). The hours flown by this expanding general aviation aircraft fleet are forecast to grow 64% between 1977 and 1989. The composition of this fleet is expected to shift toward more fully well equipped single engine airplanes, multiengine airplanes, and turbine powered aircraft as the sophistication of general aviation increases. For example, by 1989, multiengine aircraft—which are already generally well equipped with avionics—are expected to comprise 18.5% of the general aviation fleet compared with 14.4% in 1977. These aircraft will be able to benefit directly from the expanded ATC service contemplated under the CVF concept. In the 44 additional TCAs, 80 additional TRSAs, and lowered positive control area, the proposals in this notice would substantially increase the ability of the ATC system to offer full separation protection to an expanding general aviation community that is already investing heavily in airborne avionics in order to tap into this system.

REGULATORY CONCLUSION

In summary, the raising of TCA ceilings to a lowered PCA floor of 12,500 feet (10,000 feet in the Western Step and Eastern Step) will assure that sep-

aration protection is available, to millions of passengers, in the terminal and enroute phases of flight. This benefit will be significant for air carrier, commuter airline, and general aviation operations. The FAA concludes that this constitutes a needed and substantial increase in the ability of ATC and aircraft operators, working together, to further reduce the remaining risk of midair collision. However, the FAA intends to achieve this benefit in a manner that is responsive to, and accounts for, the potential costs and related impacts of the CVF program on the aviation community. The general aviation segment of that community—particularly the class of personally owned light aircraft—is the most cost sensitive user group. This is discussed below.

COSTS AND OTHER IMPACTS: REQUEST FOR PUBLIC COMMENTS

While the FAA is committed to the improvement of the ATC system wherever possible, it is also concerned with the impacts of its regulations on all airspace users, and will assess the need for expanded air traffic control against the regulatory impacts of "shrinking" the airspace in which aircraft that are not subject to air traffic control may operate freely in a "mix" with aircraft that are subject to air traffic control. Full public participation in the development of FAA regulations concerning this "mix" of controlled and uncontrolled air traffic is essential to solutions that are both effective and equitable. With respect to the enroute CVF proposals in this notice, public comment is requested herein. With respect to the forthcoming TCA proposals, as already noted, comments concerning the impacts of those actions will be invited for each location.

Some questions have been received from the public concerning whether the vigorous pursuit of safety objectives might result in the exclusion of aircraft from certain airspace merely because the aircraft are "small" or classified by purpose of use, such as "general aviation." Such exclusionary classification has no part in the controlled flight concept proposed here. While the safety objectives discussed above reflect an FAA commitment and Congressional mandate, the intent is to minimize the costs on all users, wherever possible, consistent with the safety objectives. All segments of aviation are viewed as integral and mutually supporting elements of a healthy and growing national aviation system. The imposition of a cost is intended to be related solely to the need to continue to assure the mandated levels of safety. It is not related to any intent to exclude or burden a particular aircraft class because of its

mission. In particular, in dealing with a fleet comprised of 98.7% general aviation aircraft and 1.3% air carrier aircraft, much attention has been directed to the impacts of the CVF concept on the general aviation fleet.

The FAA recognizes the impacts of these proposals, particularly in the new terminal control areas. For example, a May, 1976, study entitled "*Analysis of the Impact of Terminal Control Area (TCA) Implementation on General Aviation Activity*," which investigated the probable effect of selected TCA development on general aviation operations, concludes that—

The presence of a TCA at a large hub airport is accompanied by a marked shift in the type of general aviation aircraft using the primary TCA airport. This shift is towards the more sophisticated, more expensive, primarily business oriented aircraft.

On the other hand, that study also contained conclusions suggesting that certain other categories of impact may be held to a low level. It states that the establishment of a TCA "does not appear to dramatically affect the total number of airport operations attributable to general aviation aircraft," and that "expanding a TCA either upward or horizontally would have little effect on general aviation if reasonable VFR alternatives are retained." This study is in the docket for public review.

AN EVOLUTIONARY PROCESS

In order to ensure that the 44 proposed new TCAs, and the raised ceilings of the existing TCAs, are accomplished in a manner responsive to the problems raised at each location, the public will be invited to participate in the development of each of the new TCA actions. The configuration of a TCA can have impacts on the airports, other than the primary TCA airport, that may underlie the TCA or be included in it. Therefore, the concerns of airport operators, as well as those of aircraft operators, will be fully considered in each TCA action. It is believed that, with the same close participation of the aviation community that characterized the development of the existing TCAs following the 1968 Near Midair Collision Report, the projected addition of the new TCAs, some of which would be outgrowths of existing TRSAs, can be accomplished as a logical, equitable evolution of the earlier program.

PILOT PARTICIPATION

It is encouraging to note that, in the 80 existing TRSAs, which are completely voluntary, approximately 92% of all VFR arrivals and approximately 84% of all VFR departures elected to participate, that is, stay in communication with the appropriate ATC facility and use "Stage III" radar service. (Stage III radar service involves

radar sequencing and separation service, to provide separation between participating VFR aircraft and all IFR aircraft operating in the TRSA.) This high participation rate reinforces FAA's broader experience indicating that a high professional concern exists, within all segments of the aviation community, that available safety aids be used whenever possible. The expansion of TCA and TRSA airspace under the CVF program is expected to involve a high degree of pilot support similar to that indicated by the large percentage of VFR pilots who now voluntarily participate in Stage III radar service.

In addition to the question of pilot acceptance, the FAA requests public comment on the economic impacts of the overall CVF concept in terms of equipment required. The lowered floor of the continental positive control area would, as discussed above, require the same equipment as a Group I TCA for all operations at and above 12,500 feet (10,000 feet in the areas described as the "Eastern Step" and "Western Step"). This requires an operable VOR or TACAN receiver, two-way radio capable of communicating on the TCA frequencies, a 4096 Code Transponder, and Mode C altitude reporting equipment. These equipment requirements would be applicable, except for the Mode C capability and (in the limited case specified in § 91.90(b)(2)(iii)) transponder, in the new Group II TCAs.

With respect to aircraft that are now operating above 12,500 feet, the CVF concept should not have additional equipment cost impacts, since § 91.24 already requires those aircraft to have transponders and Mode C altitude reporting equipment, and aircraft having that relatively sophisticated equipment may be expected to have the less sophisticated equipment (VOR/TACAN and two-way radio) proposed under the CVF concept.

With respect to aircraft operations in the band between 10,000 feet and 12,500 feet, probable equipment cost impacts are more difficult to assess, primarily because the FAA, to minimize unnecessary rule making, is reluctant to require VFR pilots or aircraft owners to periodically submit reports on aircraft usage or installed equipment.

However, in 1977, under an extensive but voluntary reporting program, a substantial number of reports were submitted. Because of the limitations of any sampling process, the results must be considered to be approximate. The study is, nevertheless, conservative on the low side and is useful in that it does not underestimate the portion of the general aviation fleet that remains to be equipped with full avionics (and that could, therefore, be most heavily impacted by the CVF

concept). The report indicated that, for the least sophisticated aircraft, that is, single engine airplanes with fewer than 4 seats, 39.5% (29,403 airplanes) had no communications capability whatsoever. Of the airplanes having some communications equipment, 55.2% (41,126) had 360 channel communications capability, and 39.8% (29,650) had at least 100 channel VOR capability (the least sophisticated VOR equipment surveyed). Transponders and encoders were far more scarce, however, with approximately 10.6% of the airplanes (2,877) having transponders and 1.0% having encoders. In this class, therefore, only 1% of the airplanes, out of those sampled would be able to operate above the 10,000-foot portion of the lowered PCA floor, if the CVF concept is adopted as proposed, and 10.6% could operate in the new Group II TCAs. For this least expensive class of aircraft, it appears that an extensive fleet wide investment in avionics may be needed for these airplanes to participate in the new TCAs. It is less clear how the 10,000-foot PCA floor, defining the Eastern Step and Western Step, would affect these aircraft. The critical factor is the importance of operations above 10,000 feet to the operators of these aircraft. The FAA requests public input concerning the extent to which this class of aircraft uses the airspace above 10,000 feet. While nearly all of these aircraft have the theoretical performance capability of doing so, it may be that the long climb periods involved for these relatively low performance aircraft, as compared with the fuel range of these aircraft, and their usage (such as flight instruction, agricultural operation, etc.), effectively keep the aircraft out of the higher altitudes in any case.

The next increment in aircraft cost and complexity (i.e. the jump to the single engine airplane with 4 or more seats) appears, from this 1977 voluntary data, to also involve a major leap in avionics investment. Nearly 70% of the aircraft in this group (67,719 aircraft) were reported as having 360 channel communications equipment, 47.45% (46,565) has at least 100 channel VOR capability, and 70.2% (68,976) were transponder equipped. This class was also much more widely equipped with encoders, with 20.5% (20,128) being so equipped. As aircraft complexity and expense increased beyond this point into the multiengine piston, turboprop, and turbojet classes, the incidence of sophisticated avionics rose markedly, according to the study. For example, 98.3% of the twin engine turboprop airplanes with 12 seats or less (2,255 airplanes) were equipped with both transponder and encoder. For these more sophisticated aircraft

classes, the additional equipment costs of the proposals in this notice should be minimal.

MANUFACTURING TRENDS

It also appears that normal aircraft production and marketing patterns will gradually reduce the proportion of the general aviation fleet that is most sensitive to avionics costs. For example, in 1977, single engine piston aircraft accounted for 81% of the general aviation fleet. By 1989, this percentage is forecast to drop to 77.5%, while multiengine aircraft are forecast to represent 14% of the fleet in 1989, compared with 11.9% in 1977. The 1977 figures for general aviation shipments (discussed above) confirm that, while total shipments increased from 13,749 in 1968 to 16,624 in 1977, the shipments of single engine airplanes with less than 4 seats declined from 4,507 (1968) to 3,379 (1977). During this period, the shipment of larger single engine airplanes increased from 6,972 to 10,478 and multiengine airplane shipments increased from 2,270 to 2,767. These figures suggest that time is on the side of a relatively problem-free transition to CVF by the expanding general aviation fleet.

However, the FAA recognizes that these overall fleet figures do not answer the concern of the private aircraft owner who has not invested in avionics, and for whom the costs of personal aircraft ownership are already a substantial burden. With regard to the forthcoming terminal airspace proposals, comments from this owner/operator group will be invited. With respect to the en route proposals in this notice, these operators are requested to submit, to the rules docket, their responses to the following questions:

1. If the aircraft is operated above 10,000 feet, what is the aircraft type, how much time is spent above 10,000 feet, and what is the purpose of this high altitude operation?

2. What is the general geographic area of the operation above 10,000 feet? Specific comment on the effect of the boundaries of the Eastern and Western 10,000-foot Steps is requested.

ENVIRONMENTAL CONSIDERATIONS

With respect to the lowering of the floor of the continental positive control area to 12,500 feet generally, and 10,000 feet in the Eastern Step and Western Step, and the raising of the existing TCA ceilings to meet this lowered PCA floor, the FAA has determined that the noise, aircraft emissions, and fuel consumption effects would not involve a significant impact on the quality of the human environment. This is true since none of these proposed rule changes would signifi-

cantly alter the flight paths or operational characteristics of aircraft at the lower altitude at which noise could be a factor (such as the 2,500-foot "buffer" between the PCA floor and high, mountainous terrain), and no change is contemplated that would affect, in any significant way, the emissions characteristics or the total emissions generated by, aircraft operating in the en route or terminal airspace. While the total flight time of certain nonparticipating aircraft may be increased by circumnavigating the TCAs, this factor can be kept to a minimum through the use of minimum-distance bypass airways and VFR routes, and ATC accommodation of aircraft, in the TCA, workload permits. This is also true of the flight rules proposed in §91.111 since the are not intended to materially affect the basis operation characteristics or flight paths of aircraft. The proposed relaxation of the speed restriction in §91.70 would permit departing turbojet aircraft, under certain conditions, to leave a noise sensitive airport environment more quickly, in compliance with noise abatement procedures, and at airspeeds that are more efficient from a fuel conservation standpoint. Certain fuel consumption increases may be expected to result from the joining of the TCA ceilings with the lowered floor of the continental positive control area. These impacts and related costs would occur because nonparticipating VFR aircraft would be required to circumnavigate the TCA and could no longer overfly it. However, as was stated above regarding emissions impacts, the FAA has determined that these increases can be kept to a nonsignificant level through the use of fuel-efficient bypass airways, VFR routes permitting the shortest possible distance around the TCA, and ATC accommodation of aircraft where workload permits and where authorized by §91.24. The individual environmental impacts of the 44 new TCAs that are planned will be addressed in the rule-making process for each of the affected airport areas.

OUTLINE OF PROPOSALS

The extensive expansion of positive controlled airspace, as discussed in detail below, is proposed in order to ensure all airspace users the utmost in safe, uneventful air transportation. In order to assist commenters in responding to the request for views, data, and arguments on the application of the controlled visual flight concept, the following outline of the proposed rules is furnished. However, a full understanding of these proposals requires a close reading of the draft regulatory language furnished below. Unless otherwise stated, all altitude reference are Mean Sea Level (MSL).

DEFINITIONS—FAR PART 1

To ensure consistency between the basic regulatory definitions in Part 1 and the concept of controlled visual flight, and to correct deficiencies in that part, the following amendments are proposed (see §1.1):

1. The definition of "controlled airspace" would be broadened to specifically include "positive control areas." This corrects a long standing omission in this definition.

2. A new definition, describing "Controlled Visual Flight" would be added. This states that CVF is the operation of an aircraft under VFR "in designated positive control airspace." Note that CVR is not a third kind of flight other than VFR or IFR. It is not a hybrid. Rather, it would be defined as VFR in designated airspace having all aircraft separated by ATC. Therefore, all of the VFR provisions of the Federal Aviation Regulations would apply, in addition to any special rules applicable in the designated airspace.

3. Also correcting an omission, a definition of "positive controlled airspace" would be added making it clear that all airspace in which "positive control" (as now defined in §1.1) is exercised by ATC is "positive controlled airspace." Together with the new definition of "controlled visual flight" (see above), this makes it clear that ATC separation of each aircraft from all other aircraft, VFR and IFR, is inherent in the CVF concept. This is in addition to the pilot's duty to see and avoid other aircraft specified in §91.67, and the pilot's primary responsibility for flight safety stated in §91.3(a).

AIRSPACE PROPOSALS—PART 71

As stated above, "controlled visual flight" would be defined as VFR operations in "designated positive controlled airspace." The proposed amendments to Part 71 would define the areas of positive controlled airspace within which compliance with the CVF rules would be required. Related amendments would also be made to preserve a consistent airspace structure. These proposals are as follows:

1. The major changes would be the amendment of §71.193 to lower the continental positive control area (PCA) floor from 18,000 feet to 12,500 feet (10,000 feet in the Eastern Step and Western Step), and the amendment of Subpart K raising TCA airspace to meet the lowered PCA floor. This revision of Subpart K would, as in the past, be accomplished by additional airspace actions tailoring the raised airspace of each TCA to the conditions at each location. As stated above, public comment will be sought to minimize the adverse impacts on participating and nonparticipating aircraft. Section 71.12 would also be

amended to reflect this revision of Subpart K. In addition, 44 new TCAs, at locations listed above, would be added following notice and public procedure involving Subpart K. With this action, there would be no need for "Group III TCAs," and that category would be removed from §71.12. These changes, when combined with the lowering of the PCA floor, would provide for a continuous protective envelope of airspace, free of unknown VFR traffic, for climbing, cruising, and descending high performance aircraft. When combined with the operating rule proposals in Part 91 (discussed below), these airspace changes would assure the availability of positive control for all traffic, VFR and IFR, from takeoff to landing between locations served by TCAs. The lowering of the PCA floor, as proposed, would not apply to the Alaskan positive control area. The factors affecting aircraft operations in Alaska are not addressed in this notice.

2. Under the current rules, the continental control area extends upward indefinitely from 14,500 feet and the positive control areas terminate at 60,000 feet. There is no need for the airspace of the continental control area to be superimposed on the airspace of the continental positive control area. To eliminate this redundancy in the interest of a simpler airspace structure, §71.9 would be amended (except in Alaska) to raise the floor of the continental control area to coincide with the ceiling of the continental positive control area, which is 60,000 feet (flight level 600).

3. Control zones, under §71.11, now extend upward to the base of the continental control area. However, as stated above, the base of the continental control area would be moved up from 14,500 feet to flight level 600 (see above). There is no need to extend control zones up through the PCA airspace. For this reason, and to further simplify the airspace structure, §71.11 would be amended to provide that control zones terminate at 10,000 feet MSL, (or 3,000 feet above the elevation of the airport, whichever is higher).

OPERATING AND EQUIPMENT RULES—
PART 91

The purpose of the operating and equipment proposals in this notice is to provide the conditions under which the "Controlled Visual Flight" concept can be effectively and jointly implemented by ATC and by pilots. These proposals are as follows:

The major equipment and operating rules implementing the CVF concept would be contained in a new §91.111. These rules, which would apply in addition to all other VFR provisions, have one goal in common: The effec-

tive and continuous furnishing of ATC services to FVR operations at and above the floor of the continental positive control area. These proposals, which are believed to be the minimum needed to fully realize the benefits of an ATC controlled environment for VFR-trained pilots, are relaxed versions of the rules applicable to IFR operations in the positive control area. They have been designed with the responsibilities of VFR pilots in mind, and include the following:

(1) Either a VFR or IFR flight plan would be required before entering the positive controlled airspace (that is, before climbing to or above the floor of the continental positive control area). As discussed below, this would not change the flight plan requirements applicable to IFR aircraft but would permit cancellation of the IFR flight plan at any time before or after entering the PCA below 18,000 feet, if the CVF rules in §91.111 are complied with and the aircraft is operated in compliance with visual flight rules.

(2) VFR pilots would be prohibited from entering the PCA without ATC authorization and without at least the equipment required for Group I TCAs. This includes transponders and Mode C encoders as well as the navigational and communications capabilities required in §91.90. Consistent with this equipment requirement, §91.24(b)(4) would be amended to apply the en route transponder and Mode C requirement to aircraft "above the floor of the continental positive control area."

(3) To ensure the continued separation capabilities of ATC while a VFR aircraft is under ATC control, new §91.111 would require that VFR aircraft (a) comply with ATC clearances and instructions, (b) advise ATC if visual flight rules cannot be maintained, (c) maintain a continuous radio watch, and (d) report to ATC the loss of navigational capability. A simple rule for departing from the positive control area following two-way radio failure is also proposed. The intent of these proposals is to tailor the new requirements to the skill level of VFR pilots who now work effectively with ATC in terminal control areas. These skills would include the ability to (i) make altitude changes and fly any radar vectors assigned by the controller to maintain positive separation; (ii) file a flight plan defining the route of flight using VOR airways or point-to-point navigation with reference to navigational aids; and (iii) if so cleared by ATC, fly the flight plan route as filed. Experience with VFR pilots now participating in TCAs and TRSAs indicates that these pilots have the skills to comply with these proposals. The FAA emphasized that the provisions of §91.111 would not change, in any

way, the duty of pilots, under VFR, to plan and execute their flights in full compliance with all visual flight rules. This includes the pilots' responsibility to avoid situations (such as "VFR-over-the-top" operations in which a noninstrument rated pilot finds himself or herself over a cloud layer) resulting in deteriorating weather that may preclude continued VFR flight or safe descent at the destination. In these cases, ATC's role and responsibility, under the CVF concept, would be limited to the issuance of clearances and instructions requested by the VFR pilot, and separation of that aircraft from other VFR and IFR aircraft.

(4) Current § 91.75(a) provides that a pilot who has obtained an ATC clearance may cancel an IFR flight plan if operating in VFR weather conditions "except in positive control airspace." There is no intent to prohibit cancellation of an IFR flight plan for IFR aircraft operating in the same airspace as CVF operations. An IFR aircraft should be permitted to cancel its flight plan and proceed in the same manner as CVF aircraft in the positive control area below 18,000 feet. Accordingly, § 91.75(a) would be amended to permit cancellation of an IFR flight plan "except in positive control airspace at and above 18,000 feet." It should be noted that this would not change other rules that may limit the authority of air carriers or other operators to cancel IFR flight plans. Nor would this proposal affect in any way the duty of operators who change from IFR to VFR after entering the positive control area to comply with ATC clearances and instructions, even after an IFR flight plan is cancelled. The CVF rules would apply to these aircraft as well as to the other VFR aircraft in that airspace.

(5) Based on experience in furnishing ATC services to high performance aircraft that are departing from airports served by TCAs, the FAA has determined that the current 250-knot speed limit in § 91.70(a), that now applies below 10,000 feet, can be safely relaxed for certain departing aircraft that are climbing within a TCA. Specifically, once a high performance aircraft has departed from the close-in terminal environment and has reached an altitude of 5,000 feet, the FAA proposes to permit speeds greater than 250 knots, which would reduce the time in which the aircraft is held back in a mix with low altitude traffic, and would achieve improved efficiency in terms of passengers moved and fuel saved. Two alternative concepts are proposed for public comment. Under one proposal, the 250-knot speed limit would simply be eliminated for these climbing aircraft. Under the other alternative, a specific speed limit be-

tween 300 and 350 knots would be adopted. Under either concept, ATC would retain full flexibility to restrict the speed of aircraft where necessary for safety. This proposal does not include arriving aircraft since they present a far different traffic management and separation problem by converging, from the high speed en route structure, into the limited low altitude terminal airspace (rather than diverging into the en route environment). For these aircraft, excessive speed must be checked uniformly, by regulation, to assist in safe sequencing, efficient air traffic flow, sector-to-sector hand offs, effective low altitude vectoring, and other ATC tasks that are associated with the approach phase of flight involving the wide ranging mix of different aircraft performances present in the low altitude terminal environment.

(6) Current § 91.97(a) requires all aircraft in positive control areas to comply with specified IFR requirements, including the need for an instrument rating. An exception for aircraft operating under the CVF provisions of § 91.111 is proposed. This would achieve consistency between § 91.97 and the new § 91.111.

(7) In order to avoid unnecessary penalties on a class of sport aviation that has already achieved a high level of safety in operations up to the current floor of the positive control areas (18,000 feet), these proposals would exclude glider operations, although a prior notification of ATC (by radio or telephone) would be required. The modern competition sailplanes that operate in these higher altitudes are highly maneuverable aircraft with excellent cockpit visibility. Their operation frequently involves almost continuous circling flight, which exposes the entire horizon to pilot vision. Because of the necessarily random mode of operation of soaring operations, the CVF requirements proposed herein are virtually incompatible with soaring operations in the high altitudes. The imposition of this kind of impact has not been justified in view of the high safety record established for high altitude glider operations. The equipment and operating rule proposed in §§ 91.111 and 91.24(b) as amended, would contain exceptions for gliders operating between the floor of continental positive control area (10,000 feet or 12,500 feet, as appropriate) and 18,000 feet. It is believed that a requirement for prior notification would provide ATC with an adequate basis for routing other aircraft around the glider operations.

(8) In view of the proposal to add 44 new TCAs, as discussed above, there would be no need for Group III TCAs as an additional airspace category. Accordingly, the references to "Group

III" TCAs would be removed from §§ 91.24 and 91.90.

PARACHUTE JUMPS—PART 105

As noted above, the CVF concept is intended to ensure that ATC is aware of, and can separate, all traffic in designated airspace. The FAA has become concerned that the presence of unknown jump aircraft, and the random dropping of parachutists, may prevent full attainment of existing aircraft separation capabilities in positive controlled airspace. Experience indicates that the vertical trajectory, near invisibility, and lack of maneuverability of free falling jumpers make it extremely difficult for pilots to see and avoid them. For this reason, this proposal, when combined with the lowered PCA floor, would affect parachutists in three ways. First, the requirements in proposed § 91.111 would apply to the jump aircraft itself. Secondly, by lowering the floor of the continental positive control area to 12,500 feet (10,000 feet in the Western Step and Eastern Step), the current provisions of § 105.21, including the requirement for an ATC authorization, and the information provisions of § 105.25, would apply to jumps at and above that lowered floor. Finally, § 105.21 would be amended to extend these requirements downward into terminal control areas. Comments from the sport parachuting community are requested to assist the FAA in minimizing the impact of this proposal on jump operations.

THE PROPOSED AMENDMENT

Accordingly, the Federal Aviation Administration proposes to amend Parts 1, 71, 91, and 105 of the Federal Aviation Regulations (14 CFR Parts 1, 71, 91, and 105) as follows:

PART 1—DEFINITIONS

§ 1.1 [Amended]

1. By amending § 1.1 by revising the definition of "controlled airspace" by adding the words "positive control area," between the words "control area," and the words "control zone,"

2. By amending § 1.1 to add the following new definition following the definition of "controlled airspace": "'Controlled visual flight' means the operation of an aircraft under VFR in designated positive controlled airspace."

3. By amending § 1.1 to add the following definition following the definition of "positive control": "'Positive controlled airspace' means designated airspace in which positive control is exercised."

PART 71—AIRSPACE PROPOSALS

4. By amending § 71.9 to read as follows:

§ 71.9 Continental Control Area.

The Continental Control Area consists of the airspace of the 48 contiguous States and the District of Columbia above flight level 600, and Alaska above 14,500 feet MSL, except—

(a) The Alaska Peninsula west of longitude 160°00'00" W.;

(b) The airspace less than 1,500 feet above the surface of the earth; and

(c) Prohibited and restricted areas, other than restricted areas prescribed under Subpart D of this part.

5. By amending the first two sentences of § 71.11 to read as follows:

§ 71.11 Control zones.

The control zones listed in Subpart F of this part consist of controlled airspace which extends upward from the surface of the earth. Unless otherwise prescribed by the Administrator in Subpart F, control zones terminate at 10,000 feet MSL, or 3,000 feet above the airport elevation, whichever is higher.

* * * * *

§ 71.12 [Amended]

6. By amending § 71.12 by adding the following new second sentence after the words "of this chapter": "Each terminal control area underlying the continental positive control area listed in Subpart H of this part contains airspace terminating at the base of the continental positive control area, unless otherwise specified in subpart K." The reference to Group III Terminal Control Areas would be removed.

NOTE: The 21 Terminal Control Areas defined in Subpart K would be individually amended, in later airspace actions, to raise their ceilings to the lowered floor of the continental positive control area. This would also be true of the 44 new TCAs that are proposed. Those actions are not included in this notice but would be taken later under Subpart K. Subpart K is not published in the Code of Federal Regulations, but is found in the FEDERAL REGISTER at 43 FR 647, January 3, 1978.

7. By amending § 71.193 by revising the description of the continental positive control area to read as follows:

§ 71.193 Designation of Positive Control Areas.

* * * * *

CONTINENTAL POSITIVE CONTROL AREA

That airspace at and above 12,500 feet MSL (excluding that airspace at and below 2,500 feet AGL), up to and including flight level 600, within the 48 contiguous States and the District of Columbia, excluding the

Santa Barbara Island, Farallon Island, and the airspace south of Lat. 25°04'00" N; and the airspace at and above 10,000 feet MSL (excluding that airspace at and below 2,500 feet AGL), but below 12,500 feet MSL, in the following areas:

- (1) Western Step. Within lines extending from Lat. 39°15'00"N., Long. 123°51'00"W., via Lat. 39°15'00"N., Long. 121°00'00"W., Lat. 37°03'00"N., Long. 119°29'00"W., Lat. 36°33'00"N., Long. 119°14'00"W., Lat. 35°14'00"N., Long. 118°42'00"W., Lat. 34°56'00"N., Long. 118°21'00"W., Lat. 34°51'00"N., Long. 118°14'00"W., Lat. 34°48'00"N., Long. 118°05'45"W., Lat. 34°46'00"N., Long. 118°00'00"W., Lat. 33°56'00"N., Long. 116°22'00"W., Lat. 33°28'30"N., Long. 115°42'10"W., Lat. 33°23'40"N., Long. 115°33'20"W., Lat. 32°51'00"N., Long. 115°26'00"W., intersection of the United States/Mexican border with Long. 115°23'00"W., thence via the United States/Mexican border to Lat. 32°31'30"N., Long. 117°11'00"W., thence via a line three miles from and parallel to the coastline to the point of beginning excluding that airspace below 2,500 feet AGL.

- (2) Eastern Step. East of the Mississippi River and east of a line extending from Lat. 46°16'30"N., Long. 94°20'30"W., via the 94°20'30"W., line of longitude to the United States/Canadian border.

NOTE.—Section 71.193 is found in the FEDERAL REGISTER only (43 FR 630, January 3, 1978). It is not published in the Code of Federal Regulations.

PART 91—OPERATIONS AND EQUIPMENT

§ 91.24 [Amended]

- 8. By amending § 91.24(b) to— (i) Provide an exception from the ATC Transponder and Mode C altitude reporting equipment requirement, for persons operating gliders above the floor of the Continental Positive Control Area "up to, but not including, 18,000 feet MSL" rather than "below the floor of the positive control area" as stated in the current rule; and remove the reference to Group III TCAs in § 91.24(b)(3); and (ii) Delete the words "above 12,500 feet * * * below 2500 feet AGL" in § 91.24(b)(4) and insert the words "above the floor of the continental positive control area" in place thereof.

9. By amending § 91.70 by revising the flush paragraph following paragraph (b) to read as follows:

§ 91.70 Aircraft Speed.

* * * * *

Paragraph (b) of this section does not apply to any operations within a Terminal Control Area. Such operations shall comply with paragraph (a) of this section except that, in Terminal Control Areas contacting the base of a positive control area, climbing aircraft over 5,000 feet above the airport elevation, that are cleared for altitudes above 10,000 feet MSL within the TCA, may exceed 250 knots (288

M.P.H.) unless otherwise instructed by ATC. [In the alternative, the FAA proposes to specify a single speed limit, selected from between 300 and 350 knots, for these climbing aircraft.]

§ 91.75 [Amended]

10. By amending § 91.75(a) by deleting the second sentence and substituting for it the words "However, except in positive controlled airspace at and above 18,000 feet MSL, this paragraph does not prohibit the pilot from cancelling an IFR flight plan if the aircraft is operated in BFR weather conditions in compliance with the visual flight rules in this part, including the controlled visual flight provisions of § 91.111.

§ 91.90 [Amended]

11. By deleting § 91.90(c), Group III Terminal Control Areas.

§ 91.97 [Amended]

12. By amending § 91.97(a) by revising the introductory clause ("Except * * * section,") to read as follows: "Except as provided in paragraph (b) of this section and in § 91.111, * * *"

13. By adding the new subject heading "CONTROLLED VISUAL FLIGHT" immediately following § 91.109.

14. By adding the following new § 91.111 immediately after the new subject heading "CONTROLLED VISUAL FLIGHT" and immediately before the subject heading "INSTRUMENT FLIGHT RULES":

§ 91.111 Controlled Visual Flights.

(a) Each person who operates an aircraft (other than a glider) under VFR in the continental positive control area designated in Part 71 of this chapter, at below 18,000 feet MSL, shall comply with this section in addition to the other visual flight rules of this part.

(b) Each person who operates a glider in the continental positive control area at and below 18,000 feet MSL shall notify ATC prior to entering that airspace and furnish any information requested by ATC to assure safe separation.

(c) No pilot may operate an aircraft entering the continental positive control area under VFR unless—

(1) A VFR or IFR flight plan is filed in accordance with § 91.83 before entering that airspace;

(2) ATC authorizes the pilot to enter that airspace; and

(3) The aircraft is equipped as required for Group I Terminal Control Areas in § 91.90(a).

(d) Each pilot operating an aircraft in the continental positive control area under VFR shall—

(1) Comply with ATC clearances and instructions in accordance with § 91.75;

(2) Advise ATC if compliance with an ATC clearance or instruction may cause the pilot to violate the visual flight rules of this part;

(4) In the event of two-way radio failure, use the transponder code designated for such failure, continue to comply with visual flight rules, and leave the continental positive control area as soon as possible; and

(5) Report immediately to ATC the loss of VOR or other navigational capability.

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PART 105—PARACHUTE JUMPING

15. By amending § 105.21 by amending the section heading and paragraph (a) to read as follows:

§ 105.21 Jumps in or into positive control areas or terminal control areas.

(a) No person may make a parachute jump, and no pilot in command of an aircraft may allow a parachute jump

to be made from that aircraft, in or into a positive control area or terminal control area without, or in violation of, an authorization issued under this section.

* * * * *

(Secs. 305, 306, 307, 313(a), 601, and 1110, Federal Aviation Act of 1958, as amended (49 U.S.C. 1346, 1347, 1348, 1354(a), 1421 and 1522); sec. 6(c), Department of Transportation Act (49 U.S.C. 1655(c)); and 14 CFR 11.45 and 11.65).

NOTE.—The Federal Aviation Administration has determined that this document involves a proposed regulation which is not considered to be significant under the procedures and criteria prescribed by Executive Order 12044 and implemented by interim Department of Transportation guidelines (43 FR 9582; March 8, 1978).

Issued in Washington, D.C., on December 27, 1978.

FRANKLIN L. CUNNINGHAM,
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[FR Doc. 78-36467 Filed 12-28-78; 11:38 am]